

Please replace the abstract with the following new abstract.

A system for increasing transaction security across existing infrastructure is provided. A user bio-metric sensor device is integrated into a credit or debit card. A display unit provides a key, preferably encrypted, upon successful utilization of the sensor device. Included in the key generation mechanism is an indicator of the transaction number or other sequential count indicative of card use. An authorization service decrypts the key in a manner at least partially dependent upon a second sequential count maintained in sync with the first count to determine whether the use is authorized. In one embodiment, a separate credit card reader may be configured to read conventional credit cards, smart cards, and credit cards incorporating such bio-metric sensor devices.